

IN THE CLAIMS:


1. A method for rendering a graphical user interface (GUI), comprising:
providing for the representation of the GUI as a set of objects wherein the objects are organized in a logical hierarchy;
associating a theme with a first object in the set of objects;
rendering the first object according to the theme;
rendering any descendents of the first object according to the theme;
wherein any descendents of the first object can override the theme; and
wherein one of the set of objects can communicate with another of the set of objects.
2. The method of claim 1 wherein:
one of the set of objects can respond to an event raised by another of the set of objects.
3. The method of claim 1 wherein:
a control can have an interchangeable persistence mechanism.
4. The method of claim 1 wherein:
a control can have an interchangeable rendering mechanism.
5. The method of claim 1, further comprising:
accepting a request.
6. The method of claim 5 wherein:
the request in a hypertext transfer protocol (HTTP) request.
7. The method of claim 5 wherein:
the request originates from a Web browser.
8. The method of claim 1, further comprising:
generating a response.

9. The method of claim 1 wherein:
an object can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.
10. The method of claim 1 wherein:
associating the theme with the first object can occur when the first object is rendered.
11. The method of claim 1 wherein:
the first object inherits the theme from a parent object.
12. The method of claim 1 wherein:
the theme specifies the appearance and/or functioning of an object in the GUI.
13. The method of claim 1 wherein:
rendering the first object according to the theme can be accomplished in parallel with rendering of other objects.
14. The method of claim 1 wherein:
the theme can be specified in whole or in part by a properties file.
15. The method of claim 14 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.
16. The method of claim 14 wherein:
the properties file can specify at least one image.

17. The method of claim 1 wherein:
the GUI is part of a portal on the World Wide Web.
18. A method for rendering a graphical user interface (GUI), comprising:
accepting a request;
mapping the request to a set of objects that represent the GUI, and wherein the
objects are organized in a logical hierarchy;
associating a theme with a first object in the set of objects;
rendering the first object according to the theme;
rendering any descendents of the first object according to the theme; and
wherein any descendents of the first object can override the theme.
19. The method of claim 18 wherein:
the request in a hypertext transfer protocol (HTTP) request.
20. The method of claim 18 wherein:
the request originates from a Web browser.
21. The method of claim 18, further comprising:
generating a response.
22. The method of claim 1 wherein:
one of the set of objects can respond to an event raised by another of the set of
objects.
23. The method of claim 1 wherein:
a control can have an interchangeable persistence mechanism.
24. The method of claim 1 wherein:
a control can have an interchangeable rendering mechanism.
25. The method of claim 18 wherein:

an object can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.

26. The method of claim 18 wherein:
associating a theme with the first object can occur when the first object is rendered.
27. The method of claim 18 wherein:
the first object inherits the theme from a parent object.
28. The method of claim 18 wherein:
the theme specifies the appearance and/or functioning of an object in the GUI.
29. The method of claim 18 wherein:
rendering the first object according to the theme can be accomplished in parallel with rendering of other objects.
30. The method of claim 18 wherein:
the theme can be specified in whole or in part by a properties file.
31. The method of claim 30 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.
32. The method of claim 30 wherein:
the properties file can specify at least one image.
33. The method of claim 18 wherein:
the GUI is part of a portal on the World Wide Web.

34. A method for rendering a graphical user interface (GUI), comprising: 
providing for the representation of the GUI as a plurality of objects wherein
the objects are organized in a logical hierarchy;
associating a first theme with a first object in the plurality of objects;
rendering the first object according to the first theme;
associating a second theme with a second object in the plurality of objects;
rendering the second object according to the second theme; and
wherein the second object is a descendant of the first object.
35. The method of claim 34, further comprising:
accepting a request.
36. The method of claim 35 wherein:
the request in a hypertext transfer protocol (HTTP) request.
37. The method of claim 35 wherein:
the request originates from a Web browser.
38. The method of claim 34, further comprising:
generating a response.
39. The method of claim 1 wherein:
the first object can respond to an event raised by the second object.
40. The method of claim 1 wherein:
an object can have an interchangeable persistence mechanism.
41. The method of claim 1 wherein:
an object can have an interchangeable rendering mechanism.
42. The method of claim 34 wherein:

an object can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.

43. The method of claim 34 wherein:
the first object inherits the first theme from a parent object.
44. The method of claim 34 wherein:
the first theme specifies the appearance and/or functioning of the first object in the GUI.
45. The method of claim 34 wherein:
the rendering the first object can be accomplished in parallel with the rendering of the second object.
46. The method of claim 34 wherein:
a theme can be specified in whole or in part by a properties file.
47. The method of claim 46 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.
48. The method of claim 46 wherein:
the properties file can specify at least one image.
49. The method of claim 34 wherein:
the GUI is part of a portal on the World Wide Web.
50. A machine readable medium having instructions stored thereon that when executed by a processor cause a system to:

provide for the representation of the GUI as a set of objects wherein the objects are organized in a logical hierarchy;
associate theme with a first object in the set of objects;
render the first object according to the theme;
render any descendents of the first object according to the theme;
wherein any descendents of the first object can override the theme; and
wherein one of the set of objects can communicate with another of the set of objects.

51. The machine readable medium of claim 50 wherein:
one of the set of objects can respond to an event raised by another of the set of objects.
52. The machine readable medium of claim 50 wherein:
a control can have an interchangeable persistence mechanism.
53. The machine readable medium of claim 50 wherein:
a control can have an interchangeable rendering mechanism.
54. The machine readable medium of claim 50, further comprising instructions that when executed cause the system to:
accept a request.
55. The machine readable medium of claim 54 wherein:
the request in a hypertext transfer protocol (HTTP) request.
56. The machine readable medium of claim 54 wherein:
the request originates from a Web browser.
57. The machine readable medium of claim 50, further comprising instructions that when executed cause the system to:
generate a response.

58. The machine readable medium of claim 50 wherein:
an object can represent one of: button, text field, menu, table, window, window control, title bar, pop-up window, check-box button, radio button, window frame, desktop, shell, head, body, header, footer, book, page, layout, placeholder, portlet and toggle button.
59. The machine readable medium of claim 50 wherein:
associating the theme with the first object can occur when the first object is rendered.
60. The machine readable medium of claim 50 wherein:
the first object inherits the theme from a parent object.
61. The machine readable medium of claim 50 wherein:
the theme specifies the appearance and/or functioning of an object in the GUI.
62. The machine readable medium of claim 50 wherein:
rendering the first object according to the theme can be accomplished in parallel with rendering of other objects.
63. The machine readable medium of claim 50 wherein:
the theme can be specified in whole or in part by a properties file.
64. The machine readable medium of claim 63 wherein:
the properties file can include at least one of: 1) cascading style sheet; 2) Java Server Page; 3) Extensible Markup Language; 4) text; 5) Hypertext Markup Language; 6) Extensible Hypertext Markup Language; 7) JavaScript; and 8) Flash MX.
65. The machine readable medium of claim 63 wherein:
the properties file can specify at least one image.
66. The machine readable medium of claim 50 wherein:

the GUI is part of a portal on the World Wide Web.

67. A computer data signal embodied in a transmission medium, comprising:
- a code segment including instructions to provide for the representation of the GUI as a set of objects wherein the objects are organized in a logical hierarchy;
 - a code segment including instructions to associate theme with a first object in the set of objects;
 - a code segment including instructions to render the first object according to the theme;
 - a code segment including instructions to render any descendents of the first object according to the theme;
 - wherein any descendents of the first object can override the theme; and
 - wherein one of the set of objects can communicate with another of the set of objects.